

1. (Amended) A monopole low frequency test woofer, comprising:

a rigid mounting plate having an acoustical opening;
a monopole driver having a high mass cone and low resonance in free air, said driver being mounted on said mounting plate with a basket of said driver fitting about said acoustical opening;

[an inductor connected in series with said monopole driver;] and

a rear tub attached to said mounting plate forming an enclosure housing said monopole driver so that sound radiates from said enclosure only through said acoustical opening [and inductor to an external circuit].

2. (Amended) A test woofer, as set forth in claim 1, including an inductor connected in series with said monopole driver, [wherein] said inductor [contours] contouring frequency response of said monopole driver to match frequency response of a vehicle dipole speaker over a frequency range of interest.

9. (Amended) A band limited radiating source, comprising:

a rigid mounting plate having an acoustical opening;
a monopole low frequency driver mounted on said mounting plate with a basket of said driver fitting about said acoustical opening;

an inductor connected in series with said monopole driver;

a tub sealed to said mounting plate forming an enclosure housing said monopole driver so that radiation propagates from said enclosure only through said acoustical opening; and

an electrical connector on said tub for connecting said monopole driver to an external circuit.

1. (Amended) A monopole low frequency test woofer, comprising:

a rigid mounting plate having an acoustical opening;

5 a monopole driver having a high mass cone and low resonance in free air, said driver being mounted on said mounting plate with a basket of said driver fitting about said acoustical opening; and

10 a rear tub attached to said mounting plate forming an enclosure housing said monopole driver so that sound radiates from said enclosure only through said acoustical opening.

2. (Amended) A test woofer, as set forth in claim 1, including an inductor connected in series with said monopole driver, said inductor contouring frequency response of said monopole driver to match frequency response of a vehicle dipole speaker over a frequency range of interest.

20 3. A test woofer, as set forth in claim 1, wherein the frequency range of interest is from about 40 Hz to about 200 Hz.

25 6. A test woofer, as set forth in claim 1, wherein a top portion of a rear panel of said rear tub is offset inward toward said mounting plate to have lesser depth than a bottom portion of said rear tub to thereby form a slot.

30 7. A test woofer, as set forth in claim 6, wherein said electrical connector is positioned in said slot.

35 8. A test woofer, as set forth in claim 7, wherein said electrical connector is flush with said lower portion of said rear panel.

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9. (Amended) A band limited radiating source, comprising:

a rigid mounting plate having an acoustical opening;

5 a monopole low frequency driver mounted on said mounting plate with a basket of said driver fitting about said acoustical opening;

an inductor connected in series with said monopole driver;

10 a tub sealed to said mounting plate forming an enclosure housing said monopole driver so that radiation propagates from said enclosure only through said acoustical opening; and

an electrical connector on said tub for connecting
15 said monopole driver to an external circuit.

11. A band limited radiating source, as set forth in claim 9, wherein said monopole driver has a frequency response range of about 40 Hz to about 200 Hz.

20 14. A band limited radiating source, as set forth in claim 9, wherein a top portion of a rear panel of said rear tub is offset inward toward said mounting plate to have lesser depth than a bottom portion of said rear tub to thereby form a slot.

25 15. A band limited radiating source, as set forth in claim 14, wherein said electrical connector is positioned in said slot.

30 16. A band limited radiating source, as set forth in claim 15, wherein said electrical connector is flush with said lower portion of said rear panel.

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21. (New) A method for determining loss in baffling due to speaker environment in a vehicle being non-ideal, comprising the steps of:

5 mounting a monopole driver having a basket, a high mass cone and low resonance in free air on a mounting plate, said mounting plate having an acoustical opening, said basket of said driver fitting about said acoustical opening;

10 sealing a tub to said mounting plate enclosing said driver so that sound radiates from said enclosure only through said acoustical opening;

attaching an electrical connector on said tub for connecting said monopole driver to an external circuit;

15 measuring output of said test woofer in the vehicle; and

comparing said test woofer output with output of an optimized vehicle dipole speaker and determining frequency response difference which is the loss in baffling due to speaker environment in the vehicle.

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